



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,278	01/30/2000	Bill J. Pope	6061 P	3224

7590 07/30/2004

DANIEL P. MCCARTHY
PARSONS BEHLE & LATIMER
201 SOUTH MAIN STREET, SUITE 1800
P. O. BOX 45898
SALT LAKE CITY, UT 84145-0898

EXAMINER

ISABELLA, DAVID J

ART UNIT	PAPER NUMBER
----------	--------------

3738

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

4W

Office Action Summary	Application No.	Applicant(s)	
	09/494,278	POPE ET AL	
	Examiner	Art Unit	
	DAVID J ISABELLA	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-67 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28, 31-55, 64 and 65 is/are allowed.
- 6) ☒ Claim(s) 29, 56-63, 66 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Status of the claims

Claims 1-29,31-67 are pending in the application. Claims 1-28 were indicated to be allowable over the art of record.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 29,56-63,66 and 67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 and 8 of U.S. Patent No. 5645601 in view of Turchan et al (5,554,415) and Bunting, et al (5127923).

Pope, et al discloses a prosthetic joint having first and second members with a fixation portion and a load bearing/articulation portion. The joint includes a volume of diamond on the load bearing/articulation portion. Pope, et al discloses a prosthetic joint having first and second members with a fixation portion and a load bearing/articulation portion. The joint includes a volume of diamond on the load bearing/articulation portion.

Art Unit: 3738

Note, Pope, et al discloses that the polycrystalline materials can be bonded to the substrate according to known methods as seen in prior patents 3745623, 3767371, 3871840, 3841852, 3913280, 4311490 where it is known to use solvent catalyst in bonding application of the polycrystalline to the substrate. Turchan, et al teaches a method for coating a substrate with PCD via sintering. Additionally, Turchan, et al provides for a transition zone and the feature of a mechanical grip. Pope, et al is silent to specific methods to achieve a PCD coating on a substrate. Pope, et al describes that the PCD layer could be bonded to the joint surfaces by any satisfactory method including different methods for different surfaces. Turchan, et al outlines various known methods to provide for a PCD layer on surgical items including sintering. Moreover, Turchan, et al describes the provision of a gradient between the substrate and the PCD and the use of mechanical grip on the substrate to provide more effective bonding of the PCD (see columns 23 and 24). Pope, et al defines the broad concept of cooperating surfaces of a prosthetic joint being provided with a coating of PCD. This coating provides excellent tribological properties to the prosthesis. Pope, et al fails to disclose specific methods for providing the coating but states that those skilled in the art could use any known methods. Turchan, et al provides the specifics to the arrays of methods available to those skilled in the art including sintering. In light of the teachings of Turchan, et al, the joint/coating combination of Pope, et al would have been obvious to one of ordinary skill in the art based upon engineering considerations. The specifics to the chemical bonds, mechanical grip, topographical features, stress field, Ra value,

Art Unit: 3738

polishing, specific orthopedic structure for bone applications, materials and substrate layers are fully disclosed in the patent to Turchan, et al.

With respect to the amendment to claim 29 to include a solvent-catalyst metal, Bunting et al teaches the use of solvent-catalyst metal to aid in the process for forming a solid body. If not inherent in Pope, et al or Turchan,et al to use a solvent-calalyst metal to aid in the forming of the abrasive resistant surface would have been obvious from the teachings of Bunting et al.

With respect to claim 56, the newly added limitation to the thermal expansion of the PCD and the substrate would inherent be different, since the substrate and the PCD are materially different.

Allowable Subject Matter

Claim1-28, 31-55,64 and 65 are allowed.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Examiner agrees with applicant's arguments that the priority chain to earlier patent 5645601 has been established. Therefor the rejections under 35USC 102 and 35USC 103 have been withdrawn. The claims have been rejected under non-statutory double patenting.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DAVID J ISABELLA** whose telephone number is 703-308-3060. The examiner can normally be reached on **MONDAY-FRIDAY**.

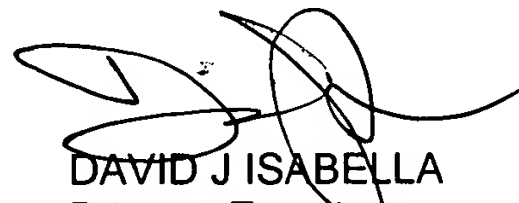
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **CORRINE MCDERMOTT** can be reached on 703-308-2111. The fax phone numbers for the organization where this application or proceeding is assigned

Application/Control Number: 09/494,278
Art Unit: 3738

Page 6

are 703-305-3579 for regular communications and 703-305-3580 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



DAVID J ISABELLA
Primary Examiner
Art Unit 3738

dji
July 28, 2004